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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,774	10/22/2003	Scott H. Gillis	14072-035001 / W 616	1593
26161	7590	06/30/2006	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			PAK, JOHN D	
			ART UNIT	PAPER NUMBER
			1616	

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/690,774

**Applicant(s)**

GILLIS ET AL.

**Examiner**

JOHN PAK

**Art Unit**

1616

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,10 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,10 and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/04, 5/04, 7/04, 3/05, 4/05, 6/05</u> | 6) <input type="checkbox"/> Other: _____   |

This Office action is in response to applicant's submission of 4/7/2006. It is noted that applicant's submission of 4/7/2006 was originally intended by applicant to be a draft version for Examiner's preliminary review – see the Interview Summary Record of 6/20/2006. The submission (amendment and remarks) was entered because it appeared to be a formal submission. It is noted now that although the cover sheet on page 1 was signed by Mr. Daley, the Remarks section of the submission on page 5 was left unsigned. However, the Examiner accepts the signature on the cover sheet to render the submission as a whole acceptable for entry. In sum, the amendment and remarks of 4/7/2006 have been entered, wherein said amendment renders the restriction requirement of 3/28/2006 moot. The restriction requirement is hereby withdrawn.

After the entry of the amendment of 4/7/2006, claims 1-2, 4, 10 and 12-14 are pending in this application. Said claims will presently be examined.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, 10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrell et al. (US 5,958,440).

Burrell et al. disclose nanocrystalline materials (e.g., column 3, lines 27-55 ; column 4, lines 59-61; column 7, lines 45-47) of oxides of silver and/or gold (column 7, lines 24-28). Burrell et al. define the term "metal" or "metals" to include pure metals as well as oxides, nitrides, borides, sulfides, halides and hydrides (column 4, lines 27-30). Coatings on sutures or burn dressings, and incorporation into creams, polymers and other matrices are taught (column 6, lines 36-49). Burrell's Example 10 discloses nanocrystalline silver powder sprinkled onto adhesive tape. A pellet of nanocrystalline silver powder is also disclosed (see Example 10 on columns 18-19). Improved antimicrobial effect is disclosed (see e.g., column 3, lines 57-65; column 19, lines 1-4 and 41-53). Release of clusters of the antimicrobial metal is disclosed (column 6, lines 24-28; column 7, lines 29-39).

Although Burrell et al. do not provide a specific example of a nanocrystalline material comprising a metal and at least 1 atomic percent of an element selected from O, N, C, B, S, P, Si, halogen, hydrogen and combinations thereof in the form of a tape, pill or capsule, Burrell et al. nonetheless suggest the same. Burrell's disclosed forms in which the nanocrystalline antimicrobial metals such as silver and/or gold are delivered include adhesive tape, pellet, creams, polymers and burn dressings. Therefore, in view of Burrell's teaching that oxides of silver and/or gold can be used together, one having ordinary skill in the art would have been motivated to formulate such nanocrystalline materials in an article in the form of a tape (expressly disclosed) and pill/capsule, which

are similar to a pellet. The claimed percentages of the "element" are encompassed by the oxide forms of silver and gold. Pharmaceutically acceptable carrier is suggested by the antimicrobial utility and burn dressing utility.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited reference.

It is noted for the record that during the prosecution of numerous applications related to this application, crystalline or nanocrystalline material composition inventions have been restricted as being distinct from methods of use thereof. Had there been claims in this application directed to a method invention, those claims would surely have been likewise restricted. Therefore, the Examiner will not make any obviousness type double patenting grounds of rejection herein over other pending applications which may claim methods of use of a tape, pill, capsule, tablet, lozenge or suppository. If applicant is aware of any applications in which pending and/or elected claims are directed to a composition of nanocrystalline materials in the form of a tape, pill, capsule, tablet, lozenge or suppository, applicant is requested to inform the Examiner of the same.

Applicant is further requested to update all application data to reflect any abandoned or patented status of referenced U.S. patent applications, see e.g. specification pages 1-2, page 84 at lines 11-14.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOHN PAK  
PRIMARY EXAMINER  
GROUP 1000